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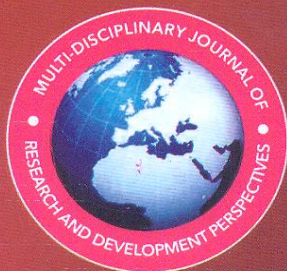
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Does Financial Deepening Cause Economic Growth? Evidence from the Economic Community of West African States (ECOWAS)

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Abstract

Deeper financial systems have long been associated with economic growth in economics literature. The financial sector is seen as the central nervous system of any economy, hence its importance in the economic development of any nation. The financial system ensures that savings are mopped up in the economy and allocated to users of funds to increase production of goods and services. The paper examined whether financial deepening leads to economic growth in the Economic Community of West African States (ECOWAS) using panel data covering the period 2000 to 2016. The results of panel unit root tests reveal that all the variables are integrated at $I(1)$ while the Kao and Pedroni co-integration tests indicate that there exist a long-run relationship among the variables. The regression results of the random effects and the System Generalised Methods of Moments (GMM) models suggest significant and positive relationships between economic growth and financial deepening, ratio of foreign direct investment to Gross Domestic Product (GDP), and ratio of investment to Gross Domestic Product (GDP). The paper suggests that the central banks and governments of the member countries of ECOWAS should consistently formulate and implement policies that would promote financial development. Policy direction should emphasize financial inclusion and the flow of credits at affordable rates to the productive sector of the economy in order to increase and sustain the impact of the financial sector on the economic development of the ECOWAS.

Keywords: *Banking system, Economic growth, ECOWAS, Financial deepening, Gross Domestic Product*

1.0 Introduction

Some economists have long held the view that financial deepening propels economic growth. Early commentaries on the subject of financial deepening and economic growth began

with the works of Schumpeter, Goldsmith, McKinnon, and Shaw. Schumpeter emphasized the importance of banks and credit in economic development as early as 1911 (Schumpeter, 1934). Goldsmith (1969) asserts that the financial sector of an economy increases productive activities in the economy as it helps in allocating idle funds from the surplus deficit units to the deficit savings units in society where the funds generate more benefits for the economy. Montiel (1995) opines that a mutually reinforcing relationship exist between growth and financial development. The size of per capita income partly account for the level of financial development in an economy, while financial development has the capacity to propel economic growth in the long run. Most advanced economies in the world have developed banking systems which have aided their economic growth and development. Based on this, it seems that one sure way to economic growth by developing countries especially the ECOWAS is the formulation and implementation of policies that would lead to the development of the financial system in the various countries. Loans and others forms of credit from deposit money banks is considered a veritable source of economic growth and development. (Khan and Senhadji, 2000).

Financial deepening generally involves all efforts directed at developing the financial system in an economy that results in increased financial instruments and assets in the financial markets which invariably lead to the expansion of the real sector of an economy. According to Levine (2004), financial deepening takes place when actors in the financial system become more efficient in rendering financial services through the reduction of the cost of doing business, executing contracts and getting required business information.

Generally, the financial system in a country is made up of the formal sector (bank and non-bank financial institutions) and the informal sector (thrift and credit associations, money lenders, financial cooperatives, self-help groups etc.).The financial system of the Nigerian economy comprises of financial markets (money and capital markets), financial institutions

and other finance institutions such as insurance companies, pension funds, finance companies, bureau de change, and primary mortgage institutions, amongst others (CBN, 2017).

An efficient financial system leads to increased employment opportunities, higher levels of investment and productivity in the economy, and general improvement in the welfare and standard of living of the population (Sanusi, 2012).

Considering the relatively slow growth of African countries, some economists have turned their attention to investigating the relationship between financial development and economic growth, more so, economic growth in advanced economies with developed financial markets have been partly attributed to their level of financial development. Ndebbio (2004) opines that lack of, low or stagnant economic growth in most sub-Saharan African countries is partly attributed to shallow financial depth which means that the range of financial assets in these countries is narrow (Ndebbio, 2004).

This study will, therefore, attempt to ascertain if financial development propels economic growth in ECOWAS using panel data methodology.

2.0 Literature Review

Some researchers have studied the financial deepening and economic growth nexus. In this section, we shall review some of the studies.

A study conducted by Alrabadi and Kharabsheh (2016) sought to ascertain whether financial deepening can lead to economic growth in Jordan using quarterly data covering the period 1992 – 2014. Adopting the Granger causality, Johansen-Juselius and Vector Auto Regressive Regression method, the study found a two-way causality relationship between financial deepening and economic growth when the former is measured by the quantum of loans availed the private sector and a uni-directional causality between financial deepening and

economic growth when the level of money supply and financial institutions deposits are used to capture the level of financial development in the country.

Ghildiyal, Pokhriyal and Mohan (2015) analysed the causal effect of financial development on economic growth in India. Employing the Autoregressive Distributed lag (ADRL), Bound testing approach and Error Correction Model (ECM) techniques, the study found that a long run relationship exist between financial deepening and economic growth. The study recommended that appropriate policies be put in place to ensure entrepreneurs in the country get the required credits as well as enhancing stock market development.

Petkovski and Kjosevski (2014) examined the banking sector in 16 economies in Central and South Eastern Europe to see if their activities lead to economic growth. The study used bank credit to the private sector, interest rate, and ratio of quasi money as regressors and employed the dynamic panel method. The results of the study indicate that the level of credit to the private sector, and the margin of interest rate in the economy have negative correlation with economic growth.

The work of Ohwofasa and Aiyedogbon (2013) researched the relationship between financial deepening and economic growth in Nigeria for a 20 years period. They employed the Vector autoregressive (VAR) methodology and its derivatives, impulse response function and variance decomposition. The outcome of the research suggests that there exists positive relationship between one year lags of gross national saving as a proportion of GDP, and economic growth and economic growth.

Chang and Wu (2012) examined the relationship between financial deepening and economic growth in Taiwan using data for the period 1981 to 2010. The result indicates the existence of a positive and significant relationship between financial deepening and economic growth and that financial deepening can increase economic growth in Taiwan.

Darrat (2006) empirically investigated the causal relationship between financial development and economic growth in 3 middle-eastern countries of Saudi-Arabia, Turkey and

United Arab Emirates. Adopting the multivariate Granger-causality tests and Error Correction model, the findings indicated that financial development causes economic growth though the degree of causality differ from one country to another and across the various variables used to proxy financial development.

A few studies, however, seem to cast doubt on the notion that an efficient financial system helps to propel economic growth. While some economists opine that financial development have a major role to play in uplifting general standards of living, others consider the role of financial deepening as negligible.

For instance, Gries, Kraft, and Meierrieks (2008) investigated the relationship between a country's financial development, trade openness and economic growth in 13 Latin American and Caribbean countries. They adopted a VAR/VECM framework for the study. The results of the study revealed no major evidence that financially deepening drives economic growth.

Similarly, Rousseau and Wachtel (2009) investigated the finance-growth nexus and found that the widely acclaimed relationship between financial deepening and economic growth was not consistent and could not be relied on. Mohamed (2008) also examined the long-held view that financial deepening and economic growth and development are positively correlated. His study was conducted on Sudan covering a period of 35 years specifically from 1970-2004. The outcome of the study show a weak causal relationship between financial deepening and economic performance in Sudan. Robinson (1952) stressed the point that financial deepening does not propel economic growth. He asserts that economic growth leads to financial deepening and not the other way round. Also, Lucas (1988), does not agree that financial development spur economic growth.

While there are conflicting views about the relationship between financial development and economic growth in the literature, this study attempts to ascertain the actual relationship between financial deepening and economic growth in the ECOWAS sub-region.

3.0 Methodology

3.1 Model Specification

The theoretical framework for the model used in this study is drawn from the formal endogenous growth models as used in the study by Ohwofasa and Aiyedogbon (2013), with useful hints from the work of Ndebbio (2004). The roles of capital, labour, and technological progress in enhancing economic growth have been well established in the growth theories. Thus, the model specified in this study is based on previous studies on the subject mentioned above as well as studies cited in the literature review. In the model, it is hypothesised that there is a causal relationship between economic growth (PCY), financial deepening (CPS/GDP) and other control variables such as foreign direct investment as a proportion of GDP (FDI/GDP), proportion of investment to GDP (INV/GDP), inflation (INF), and degree of openness (OPENX). The model specified for this study is:

$$PCY = f(CPS/GDP, FDI/GDP, INV/GDP, INF, OPENX) \dots\dots\dots (1)$$

The dependent variable used in this model to proxy economic growth is Per Capita Income (PCY). The explanatory variable of focus is financial deepening which is represented by the ratio of domestic credit to private sector to GDP (CPS/GDP). Some studies have employed the proportion of broad money to GDP, and the total bank credit to GDP as indicators of financial depth. However, because firms in the private sector often have much more tendency to propel economic growth, the proportion of domestic credit to the private sector to GDP (CPS/GDP) is now more commonly used to proxy financial deepening in an economy.

Credit to the private sector excludes credits extended to public enterprises, governments and its agencies (World Bank, 2012). Some other control variables which impact economic growth as often employed in the economics literature include the ratio of Foreign Direct Investment to GDP, ratio of Investment to GDP, Inflation and degree of Openness in an economy. The variables are expected to have a positive relationship with economic growth except for inflation. Foreign direct investment has been acknowledged as a reliable determinant of economic growth especially in developing countries. It works through increases in the levels of productivity in a country hence the expectation is that its coefficient will be positive. Investment (INV) is proxied by gross fixed capital formation and it is acknowledged as a propeller of economic growth in economic theory. It is expected that the greater the level of investment in an economy, the higher would be the level of economic growth, *ceteris paribus*.

The econometric form of model (4) takes a panel regression form which assumes cross-sectional heterogeneity (cross section effect) and period heterogeneity (time effect). In specifying the panel regression model, cross sections (ECOWAS countries) and year dummies (2000-2016) are included. This will ensure that biases due to heterogeneity in the data set are minimized. The panel multiple regression model with an error term (ε_t) is specified in econometric form as;

$$NPL_{it} = \beta_0 + \beta_1CPS/GDP_{it-1} + \beta_2FDI/GDP_{it} + \beta_3INV/GDP_{it} + \beta_4INF_{it} + \beta_5OPENX_{it} + \alpha_i + \varepsilon_{it} \dots \dots \dots (2)$$

The β s are parameters, α_i is the unobserved country effect, ε_{it} denotes the disturbances; i and t denote cross-section and time indicators, respectively.

Where:

- CPS/GDP_t = current Domestic Credit to Private Sector to GDP ratio
- FDI/GDP_t = current Foreign Direct Investment to GDP ratio
- INV/GDP_t = current Investment to GDP ratio

INF_t	= current rate of Inflation
$OPENX_t$	= current degree of openness
α_i	=unobserved individual (country specific) effects and
ε_{it}	= error terms over the cross-section and time
i	= individual country
t	= time

The apriori expectations for the explanatory variables are: $0 < \beta_1, \beta_2, \beta_3, \beta_5 < 1$; $\beta_4 < 0$.

3.2 Method of Data Analysis

In general, countries in the ECOWAS sub-region exhibit many differences; both institutional, policy and macroeconomic environments. As a result, any analysis of the relationship between financial deepening and economic growth that does not take into account such country-specific characteristics would distort our estimation process and the conclusion to be drawn. Based on the above observation, the preferred panel data analysis method must take into account the cross-sectional and time-series features of the sample data.

Thus, the panel data analysis utilised in this study accommodates the peculiarities of each ECOWAS country by including the individual country's distinct effects which may be random or fixed. The random effects model, on the other hand, assumes the independence between the error term and the independent variables. In this study, we employ fixed effects and random effects panel models to specify the relationship between financial deepening and economic growth in ECOWAS. The Hausman test would subsequently be used to select between the fixed and random panel estimation techniques. The system GMM regression model will also be used in this study to provide a basis of comparing the outcomes of the fixed and random effects regression models.

3.3 The Data

The data used in this study are panel data; a combination of time series and cross-sectional data. The study uses data of fifteen (15) countries which make up the ECOWAS sub-region. The countries are Benin, Burkina Faso, Cabo Verde, Cote D'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo. All the data were obtained from the World Bank *World Development Indicators* database (2017).

4.0 Empirical Analysis

4.1 Descriptive Statistics

In order to present a broader picture of the panel data set, we present the descriptive statistics of the data as in Table 5.1 below. The table reveal that the average annual per capita income (PCY) for the fifteen ECOWAS countries for the period under review is \$630.32. This is considered very low when compared with average annual PCY in some advanced and emerging economies such as Australia, Belgium, Brazil, Britain, China, France, South Africa, and South Korea which stand at \$33,541, \$32,299, \$6,378, 37445, \$3,177, \$30,721, \$4,374, and \$16,618 respectively for the period 2000 to 2016 (WDI, 2017). The maximum and minimum values of the variable suggest the existence of a wide gap among the countries in terms of per capita income in the sub-region. This is buttressed by the high standard deviation value of 562.94. The Jarque-Bera (J-B) value is fairly okay and passes the significance test at the 1 percent level, revealing that the density function of the series is normally distributed. The J-B value for FDI/GDP is very high and it passes the significance test at the 1 percent level. This shows that the density function of the series is non-normally distributed.

For the CPS/GDP ratio, the main independent variable of interest, the average value is :

Table 4.1: Descriptive Statistics

<i>Variable</i>	<i>Mean</i>	<i>Max</i>	<i>Min</i>	<i>Std. Dev.</i>	<i>Skew</i>	<i>Kurt</i>	<i>J-B</i>	<i>Observations</i>
<i>PCY</i>	630.83	2867.65	70.16	562.94	2.22	7.72	446.27	255

<i>CPS/GDP</i>	16.10	65.74	0.41	12.34	1.99	7.74	406.82	255
<i>FDI/GDP</i>	5.43	89.47	-0.90	9.76	5.48	41.69	17176.91	255
<i>INV/GDP</i>	19.94	51.46	1.10	8.77	0.83	3.86	37.04	255
<i>INF</i>	5.54	34.70	-35.84	6.88	0.45	9.95	521.74	255
<i>OPENX</i>	73.51	311.35	20.72	35.78	3.51	21.54	4175.59	255

Source: Authors' computation using EViews 9 software – Raw data obtained from the World Bank *World Development Indicators* database (2017).

is 16.10. This is high revealing that for some countries in the sub-region, domestic credit to the private sector forms a large proportion of their overall GDP. The extreme values (maximum and minimum values of 65.74 and 0.41 respectively) indicate that while in some countries, CPS account for as much as 65 percent of their GDP, other countries (like Guinea-Bissau in some years) have quite negligible contributions of CPS to GDP. The J-B value for the variable is very high and significant, showing that there is heterogeneity among the data for the series.

The low values of skewness of the *INV/GDP* and *INF* variables reveal that most of the countries' averages are around the mean value. Similarly, the J-B value for the *INV/GDP* and is low and it passes the significance test at the 1 percent level. This indicates that the density function of the series is normally distributed.

4.2 Panel Stationarity Test

In this section, we examine the unit root (stationarity) properties of the individual variables. To do this, we apply a summary of the major panel unit root tests methods of Levin, Lin & Chu (LLC), Im, Pesaran & Shin (IPS), ADF Fisher Chi-Square and PP Fisher Chi-Square. This is due to the fact that the LLC and IPS (the two major panel unit root tests in the literature) may produce conflicting stationarity status results for some of the variables (as in the case of the *INV/GDP* variable), making it difficult to take a decision on the whether the variable is stationary or not. The summary of the tests is presented in table 5.2 below.

Table 4.2: Summary of panel unit root tests

Variable	LLC Test/ (Probability)	IPS Test/ (Probability)	ADF Fisher/ (Probability)	PP Fisher/ (Probability)	Remark
PCY	-5.88276/ (0.0000)	-5.30455/ (0.0000)	82.1834/ (0.0000)	132.248/ (0.0000)	Stationary I(1)
CPS/GDP	-3.00055/ (0.0013)	-4.99213/ (0.0000)	79.6528/ (0.0000)	182.877/ (0.0000)	Stationary I(1)
FDI/GDP	-5.63422/ (0.0000)	-6.60654/ (0.0000)	99.9234/ (0.0000)	190.557/ (0.0000)	Stationary I(1)
INV/GDP	0.24554/ (0.5970)	-5.54581/ (0.0000)	84.8077/ (0.0000)	162.407/ (0.0000)	Stationary I(1)
INF	-13.5155/ (0.0000)	-12.8653/ (0.0000)	183.285/ (0.0000)	330.101/ (0.0000)	Stationary I(1)
OPENX	-3.07102/ (0.0011)	-4.63330/ (0.0000)	73.1977/ (0.0000)	145.834/ (0.0000)	Stationary I(1)

Source: Authors' computation using EViews 9 software – Raw data obtained from the World Bank *World Development Indicators* database (2017).

The stationarity tests shows that all the variables are integrated at order one (that is, after first differencing).

4.3 Panel Co-integration Test

We further conduct a panel co-integration test to confirm if the variables have long run relationships using the Kao and Pedroni Residual Co-integration tests. The Kao test in Table 5.3 below reveals that there is a co-integration and long run relationship between all the variables in the model. The null hypothesis of no co-integration is rejected at the 5 percent level of significance.

Table 4.3: Kao Co-integration Tests

Null Hypothesis: No cointegration

	t-Statistic	Prob.
ADF	1.680984	0.0464
Residual variance	4352.524	
HAC variance	404.1511	

Source: Authors' computation using EViews 9 software – Raw data obtained from the World Bank *World Development Indicators* database (2017).

For the Pedroni test as in Table 5.4 below, a majority of the outcomes are indicative of co-integration among the variables. Specifically, six out of the eleven outcomes suggest that there is co-integration among the variables.

Table 4.4: Pedroni Cointegration Test

Null Hypothesis: No cointegration

Alternative hypothesis: common AR coefs. (within-dimension)

	<u>Statistic</u>	<u>Prob.</u>	Weighted <u>Statistic</u>	<u>Prob.</u>
Panel v-Statistic	-6.057735	1.0000	-6.057735	1.0000
Panel rho-Statistic	3.890871	1.0000	3.890871	1.0000
Panel PP-Statistic	-26.69124	0.0000	-26.69124	0.0000
Panel ADF-Statistic	-2.850065	0.0022	-2.850065	0.0022

Alternative hypothesis: individual AR coefs. (between-dimension)

	<u>Statistic</u>	<u>Prob.</u>
Group rho-Statistic	5.437406	1.0000
Group PP-Statistic	-29.12595	0.0000
Group ADF-Statistic	-2.204486	0.0137

Cross section specific results

Source: Authors' computation using EViews 9 software – Raw data obtained from the World Bank *World Development Indicators* database (2017).

Based therefore, on a majority of the results from the Kao and Pedroni tests, we conclude that there are long run relationships between the variables.

4.5 Regression Analysis

4.5.1 Fixed Effects Model, Random Effects Model, Hausman Test and Generalized Method of Moments (GMM)

The panel data estimation procedure employed in this section assumes that the biases in the pooled data could either come from cross-sectional heterogeneity or time series (periodic) variations. As a result we conducted the fixed and random effects models estimation

tests and used the Hausman test of heterogeneity to determine the best effects model (random or fixed) to be adopted in the analysis. The estimation of the model is also undertaken using the System GMM to enable us compare the results of the fixed or random effects model. The summary of the estimation outcomes of the fixed and random effects models are contained in Tables 5.5, 5.6 and 5.7 below.

Table 4.5: The Estimation Results – Fixed Effects and Random Effects

<i>Variable</i>	<i>Fixed Effects</i>			<i>Random Effects</i>		
	<i>Coefficient</i>	<i>t-Statistic</i>	<i>Prob.</i>	<i>Coefficient</i>	<i>t-Statistic</i>	<i>Prob.</i>
C	13.943	3.797	0.0002	13.943	3.797	0.0002
DCPS/GDP	10.662	5.108	0.0000	10.662	5.108	0.0000
DFDI/GDP	8.294	2.465	0.0145	8.294	2.465	0.0144
DINV/GDP	4.888	2.001	0.0466	4.888	2.001	0.0465
DINF	4.540	3.542	0.0005	4.543	3.542	0.0005
DOPENX	0.329	0.381	0.7031	0.329	0.381	0.7031
Durbin- Watson		2.16			2.16	
R-squared		0.25			0.25	
Adjusted R-squared		0.19			0.23	
F-statistic		3.90 (prob. – 0.000)			15.74 (prob.- 0.000)	

Source: Authors' computation using EViews 9 software

Table 4.6: Correlated Random Effects - Hausman Test

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.000000	5	1.0000

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
DCPS/GDP	10.662352	10.662352	-0.000000	NA
DFDI/GDP	8.294692	8.294692	-0.000000	NA
DINV/GDP	4.888709	4.888709	-0.000000	NA
DINF	4.540134	4.540134	-0.000000	NA

DOPENX	0.329845	0.329845	-0.000000	NA
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Source: Authors' computation using EViews 9.

Table 4.7: Generalized Method of Moments

Dependent Variable: DPCY

Method: Panel Generalized Method of Moments

Instrument specification: C DCPS/GDP DFD/GDP DINV/GDP DINF DOPENX

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	13.94288	3.560432	3.916062	0.0001
DCPS/GDP	10.66235	2.023708	5.268721	0.0000
DFDI/GDP	8.294692	3.262359	2.542544	0.0117
DINV/GDP	4.888709	2.368853	2.063745	0.0401
DINF	4.540134	1.242526	3.653953	0.0003
DOPENX	0.329845	0.838132	0.393548	0.6943
R-squared	0.251724	Mean dependent var		21.32808
Adjusted R-squared	0.235735	S.D. dependent var		54.48912
S.E. of regression	47.63562	Sum squared resid		530981.7
Durbin-Watson stat	2.157642	J-statistic		1.49E-29
Instrument rank	6			

Source: Authors' computation using EViews 9 software – Raw data obtained from the World Bank *World Development Indicators* database (2017).

First, we analyse the result of the Hausman test as reported in table 5.6 above. The null hypothesis of the test is that the random effect model is the most appropriate. The Chi-square statistic value for the equation is highly insignificant with a probability of 1.0000. From the result, we cannot reject the null hypothesis that the random effect model is the best model to be employed. Hence, the best method to apply is the random effects model. Though in this study, we report both the fixed effects and random effects estimates in order to provide a comparison, we shall however use the results of the random effects model for our analysis. The results of the GMM regression as above are similar to those of the random effects model and thus can be said to validate the results as the best for the study.

The adjusted R squared value of 0.23 is low, suggesting that only 23 percent of the systematic variations in per capita income in ECOWAS are captured in the model. The low R squared value is however not a major issue in the result since as Iyoha (2004) noted, the coefficient of determination for panel data studies are usually low due to heterogeneity effects. The F-value for the random effects result is however high and significant at the 1 percent level, indicating that a significant relationship exists between per capita income and all the independent variables combined. The Durbin-Watson statistic of 2.16 suggests there is no likelihood of autocorrelation.

The individual effects of the explanatory variables on the dependent variable are determined based on the coefficients of the estimates. From the results, the CPS/GDP, FDI/GDP, INV/GDP, and INF variables in the model are significant. The financial deepening variable is significant at the 1 percent level with positive coefficient of 10.662. This indicates that financial deepening has a positive and very significant impact on economic growth in ECOWAS. The coefficient of 10.662 indicates that a 1 unit increase in CPS/GDP will lead to 10.7 units rise in per capita income. Thus, financial development has the potential to cause remarkable growth in the economies of ECOWAS. The result is consistent with the studies of Darrat (2016), Alrabadi and Kharabsheh (2016), Kiran, Yavus, and Guris (2009), and Khan and Senhadji (2000) which found positive correlation between financial deepening and economic growth.

The foreign direct investment as a proportion of GDP (FDI/GDP) variable passes the significance test at the 5 percent level and has a high positive coefficient of 8.294 signifying that a unit increase in FDI will cause a far more than proportional increases in per capita income. This shows that in general, FDI is one of the major drivers of economic growth in countries in the ECOWAS sub-region.

The INV/GDP variable is equally significant at the 5 percent level and positively signed. This conforms to a priori expectation of a significant positive relationship between investment and economic growth. The INF variable is significant and positively related to economic growth. This contradicts the a priori expectation of a negative relation between inflation and economic growth and hence inconsistent with the studies of Barro (1995), Bruno and Easterly (1996) and Ghosh and Phillips (1998) all of whom found negative relationships between inflation and economic growth. However, a few studies indicate the likely presence of a positive relationship. The Phillips curve, for instance, suggest that there is a positive relationship between inflation and economic growth (Smith, 2013).

The degree of openness (OPENX) variable is however not significant even at a conservative 10 percent revealing that trade openness has not significantly benefitted ECOWAS countries. This may not be unconnected with nature of trade between developing countries who export mainly primary products and import manufactured goods making openness to trade to have lesser benefits to developing countries (Huchet-Bourdon, Le Mouel, and Vijil, 2017)

5.0 Conclusion and Recommendations

The objective of this paper is to empirically verify if financial deepening leads to economic growth in member countries of the ECOWAS sub-region. The regressions which were carried out using the random effects model and the system generalised methods of moments (GMM) through different explanatory variables show that financial deepening have a very significant and positive relationship with economic growth in ECOWAS. Specifically, a 1 unit increase in financial deepening leads to a more than proportionate increase in economic growth by over 10 units. This shows that member countries of ECOWAS stand to reap

tremendous benefits in their living standards if they embark on effect policies that would engender financial development in all ramifications.

Based on the above, this study recommends that the central banks and governments of the member countries of ECOWAS should consistently formulate and implement policies that would promote financial development in the country. Policy direction should emphasize financial inclusion, development of the financial markets, the insurance sector and the banking sector, and the flow of credits at affordable rates to the productive sector of the economy in order to increase and sustain the impact of the financial sector on economic development of the ECOWAS.

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